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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE.

AUG 2 1919

REPORT FOR THE WEEK ENDING AUGUST 2, 1919.
(Except where otherwise indicated)

Amarillo:

The past week has been hot and dry, the first three or four days being rather windy. We have had no rain to speak of; however, the crops are growing fast and not showing any signs of lack of moisture. Corn is tasseling at a height of from 4 to 6 feet; milo is heading at from 2½ to 4 feet; and Sudan grass is heading and is over 5 feet tall. A few of the kafir heads are in the boot. Cowpeas are beginning to bloom.

Counting of stands and thinning has been finished. The field is now being gone over with hoes to get the weeds left by the cultivators. Weeds in the roads have been cut with the mower.

Maximum temperature for the week, 94; minimum, 61; average hourly wind velocity, 8.4 miles; evaporation (4' tank), 2.972 - (6' tank), 2.224; precipitation, .02. Precipitation for the month of July amounted to 2.39 inches.

Archer:

Damp, misty weather prevailed during most of the past week and has kept us out of the harvest field. The weather permitting, we will start cutting wheat tomorrow. Barley on the rotations will be ready to cut in two or three days. Spring wheat is ripening rapidly. Oats are very uneven and the rabbits have damaged some of the wheat plots to some extent. Potatoes are looking good and some tubers are setting. The pea plots on the rotations were plowed under Wednesday.

Prof. E. C. Chilcott, Mr. O. J. Grace, and Mr. J. M. Stephens visited the Station on Tuesday.

Big Springs:

Maximum temperature for the week, 97; minimum, 67; wind velocity, 5.8 miles; evaporation, 2.35 inches; and precipitation, .13 inch.

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Precipitation for July, .95 inch. This brings the total precipitation for the year - Jan. 1 to July 31 - up to 15.68 inches, which is severaal inches above the average for the same period, and within two inches of the total for 1917 and 1918.

Dalhart:

We have at last accomplished a long needed piece of work: The cement floor in the implement shed is completed. We have our new pit scales set and they are working fine. We have the best scale to be found around Dalhart. The timbers and everything about the scale are set solid and braced in such a way that they should give long service with accurate weights. All timbers have been coated with a water-proofing roof coating.

The field work for the week has consisted of cultivating, plowing, and mowing. We finished all the cultivating for the second time. The plots and fields are clean and look good. We have mowed the roadways for the third time this year. The early fall plowing for winter rye was done. The plots had been previously disked and when plowed the soil turned over in good condition. The fallow plots were cultivated this week. We have only a little hoeing to do, as most of the fields are clean.

Last night we got a good rain, amounting to .68 inch. Each time we have finished cultivating it has rained. None of our crops were suffering for want of water. Crops in this part of the country are all looking good. We have some crops heading at this time. The first date of red amber sorgo will be ready to harvest before long. The birds are beginning to come in droves to feed on the crops as they head out. We have been killing black birds and sparrows for the past two weeks. These are giving us the most trouble, and if they are not killed they will eat the seed to such an extent that we will not be able to get accurate results.

Weather report: Maximum temperature, 91; minimum, 62; precipitation,.68".

Edgeley:

Maximum temperature, 99; minimum, 38; precipitation, 2.13 inches.

All grain is ready to cut, and harvesting is being pushed as rapidly as possible. Rust killed all the grain before it matured so that the yields will be very small and the kernels badly shrunken. The grasshoppers are cutting the heads off the standing grain, and are working on the grain in the shocks. All grain is being capped so as to protect it as much as possible. Corn is making a splendid growth since the rain. The hoppers are doing considerable damage to the corn, and it may be necessary to cut it before it matures fully in order to protect it from the insects.

Garden City - for the month of July:

The hot and dry weather that had prevailed during May and June continued up to the 14th of the present month, at which time we received a total of 2 inches of rain. This amount afforded us temporary relief, but the severe hot winds that followed made climatic conditions very severe for the growing crops and rain is badly needed at the present time.

Corn and sorghum crops have made a fair growth in spite of the adverse climatic conditions that have prevailed. Corn is all in full silk and tassel, and many of the sorghums are heading. Kursk millet on moisture reduction is about ready to harvest. We have planted millet three times in our regular rotation field, but have failed to obtain a stand. The same is true of cowpeas. In the latter case the principal cause of our failure to secure stands is the fact that grasshoppers are showing a special fondness for the tender plants just as they emerge.

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All crops have been cultivated once, and some have had a second cultivation during the month. Large weeds have been cut with a hoe and all plots are almost free of weeds. Soil samples were taken on M.C. spring wheat, M.C. corn, and on Sepcial Methods of Fallow with winter wheat. We have been unable to do our threshing because of the labor shortage, but hope to get at it next week. Our second crop of alfalfa on irrigated land was cut on the 28th and a fair tonnage of excellent hay was secured.

Prof. and Mrs. E. C. Chilcott, and Mr. E. F. Chilcott visited the Station on the 17th. Prof. Chilcott remained with us until the 19th. Mr. O. J. Grace arrived on the evening of the 18th and spent some time at the Station on the following morning. Prof. Chilcott, Mr. Grace, Mr. Knapp - former superintendent of this Station - and the writer, Mr. F. A. Wagner, then made a motor trip to the Hays Station. Mr. F. D. Farrell, director of the Kansas Experiment Stations, visited the Station on the 5th and 6th.

Maximum temperature, 102; mean maximum, 91.5; minimum, 55; mean minimum, 65.9; precipitation, 2.97"; evaporation, 11.82"; wind velocity (8' anemometer), 11.7 miles an hour; (2' anemometer), 9.5 miles an hour.

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Frequent showers throughout the week have prevented much work in the field. Flax on the rotations was cut, but in many cases the crop was so short that it could not be gathered. Corn has eared out and in several cases the ears are almost as tall as the parent plant. None of the corn stands over 40 inches high. The showers of the past few days have freshened up corn and potatoes in good shape.

Temperatures for the week; maximum, 98; minimum, 50; precipitation, .70".

Lawton:

Precipitation during the month of July totaled 3.71 inches, which is but 0.57 inches above normal. Practically all of this rain fell from the 16th to the 20th, inclusive. Sunshine has prevailed during the past week, and the maximum temperature ranged from 91 to 96.

Working during the week has consisted largely in trimming the ends of all the row crops plots and cutting weeds out of all the crops. Some stubble disking was also done. Two sweet clover plots were harvested and yielded 3,600 lbs. of hay per acre. Sudan grass was also harvested and will make a heavy yield of hay. Practically all sorghum crops, except some of the late date plantings, are pretty well headed out, and the earlier plantings are pretty well filled. Birds are doing very heavy damaged on those plots where the grain is in the milk stage. Some of the manured plots that headed first have been badly damaged by birds. Cottom has made excellent progress, and the indications are good. Broom corn is also well advanced and will be pulled during the next week; this crop is also going to be heavy. The oat plots in field B yielded from 53.8 to 76.? bushels per acre, while the test ranged from 28 to 31. Two plots in field A yielded only 12.2 and 15.6 bushels per acre, and tested 27 to 29.

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Corn is still growing some and is now well into the roasting ear stage. The Station strain of Northwestern Dent seems to be much better at present than any of the other varieties. The light rain of the past week has been of some value to the corn. The weather is now much cooler than a couple of weeks ago.

Maximum temperature, 91 on the 28th; minimum, 52 on the 31st; precipitation, .69 inch. The total precipitation for July was .85, or 1.3 below the 40-year mean for this section. The total for the year to date is 9.07, or about 3 inches below the 40-year mean.

Cooperative Grazing Experiment.

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100	70	50	30	Rotation
500	420	430	115	490
1830	1930	1580	1380	1830 (gain since June 1)

The cattle in the 30-acre pasture showed a slight loss for the latter half of July, but not enough to move them to the reserve pasture. It will no doubt be necessary to move them in 10 days or two weeks.

Arboriculture.

Mr. Henchel is working in the vicinity of Pierre, S. Dak., on his way west to Ardmore and Wyoming territory. Mr. Bastine is working the remaining territory in northwestern North Dakota, around Williston, and will proceed into Montana.

Office work in connection with the summer inspections is being continued. Cards to cooperating farmers on which to make their report of deed trees have now been sent to over 800.

Probably some 500 farmers with their families attended the Farmer's Picnic planned by Mr. Max Morgan, County Agent, and held on July 30 at this Station. Despite the half inch of rain that fell the previous night and made roads difficult for travel, every point of importance in the County was represented, some travelling from 50 to 75 miles.

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Mandan, continued:

Following the talks, while a canning demonstration was held in the machinery barn, Mr. Max Pfaender, Mr. J. T. Sarvis, Mr. F. E. Cobb, and Mr. A. C. Dillman, conducted the farmers over the experimental area of the Station and explained, with practicall illustrations, the objects and aims of the work.

Visitors during the week include d Mr. Chas. H. Clark, Dr. Stakman, Mr. J. Allen Clark, Mr. John H. Martin, all of the Cereal Investigations Office; Dr. Melhus from Ames, Iowa; and Mr. J. H. Parker from Manhattan, Kans.

North Platte:

Threshing, which had been in progress on the Station since July 18, was stopped by rain on the night of the 31st. Oats and barley on the D.L.A. plots are yet to be threshed.

Rains during the last three days total 2.75 inches of precipitation. Previous to this corn leaves were rolling and some fields near the Station were beginning to fire. Corn crop prospects are now excellent, as the growth and stands are good and the fields generally clean.

July rainfall was 5.33 inches, which is 217 percent of normal.

Scottsbluff:

With the exception of the first and last days, the week has been cloudy with little or no sunshine. Only .35 inches of precipitation fell, but the cool weather has kept the corn from burning. The entire week was spent hoeing weeds and taking soil moisture samples.

The Annual Farmers' Picnic will be held the coming week, and arrangements are being made to entertain a large number of visitors. Messrs. Chilcott and Grace, and Stephens were station visitors the first of the week.

Maximum temperature, 97; minimum, 59; precipitation, 135 inch.

Sheridan:

The past week has been somewhat cool and rather cloudy, with some rain, which, although it amounted to but little, came in such form that it did late crops considerable good. The following data was collected: Maximum, 97; mean maximum, 86; minimum, 57; mean minimum, 61; precipitation, .42 inch; evaporation, 1.778 in.; and avg. wind velocity, 5.4 miles.

The month of July has been the hottest month (highest mean temperature) on record at Sheridan. The mean being 74.7, and we normally expect 67.0 degrees. The total precipitation for the month has been .78 inch; normal being, 1.02 in. To August 1 this year we are 5.96 inches short of precipitation, the normal to August 1 being a total of 10.48 inches. While the wind has not been violent this summer, it has blown considerably more than normal. Evaporation for the month was 10.297 - the highest on record here in July. This is an average evaporation of close to one-third of an inch per day.

Corn presents a very much better appearance, owing to the cool and somewhat rainy past week. It is making a satisfactory growth, but it cannot make much of a fodder crop and is very apt to make no good ears.

Sheridan, continued:

One day of threshing was done during the week of spring wheat from rotations and the variety field. A plot or two of winter wheat was also threshed. Results with spring wheat are what we expected, but are discouraging as most of them amounted to practically nothing. Without an exception, spring wheat on disked corn land, fall plowed, or spring plowed land was very badly shrivelled, but that on green manured land generally, and on summer tillage, threshed out very good samples of wheat, consider the season, although yields were low on them. Winter wheat so far is not very badly shriveled.

The land - summer tilled - for winter wheat varieties and rates and dates was prepared for seeding and staked on the 31st and the first dates of seeding made. Plot B of M.C. winter wheat was plowed, and although it was very dry, plowed up in good shape.

Train after train of cattle are being moved from this country because of shortage of pasture and water. Some are being marketed and others moved to pastures in numbers to the east and south of us. Most of those who have cattle in numbers over 25 or so are unloading, although it appears as though so much stock being moved out will make hay available at a reasonable figure by Xmas.

Tucumcari:

All crops continued to make a very rapid growth, and many of the sorghums will soon be fully headed out. On some of the sorghum plots the growth is uneven, but the plants are gradually getting uniform in height. A round of soil samples was taken during the week, and the soil was found filled with moisture to the full 6th foot sampled. Rains have been so frequent that there has so far been little feeding by crops on the reserve moisture supply, and if we were not to get any more rain this season good crops are practically assured on the Station.

A hundred milo trip made from the Station on Saturday, the 2d, out over the plains country showed crops in a most excellent condition. Corn, especially, is very good and indications are that it will make a high yield. Some wheat is being threshed, and at one farm where threshing was in progress the yield was slightly better than 30 bushels per acre and the quality of grain high.

Field work for the week has consisted of hoeing weeds, cultivating, making selections on the cooperative bean work, and other jobs and routine work.

Maximum temperature, 89; minimum, 63; wind velocity, 5.4 miles; evaporation, 2.089"; precipitation, .06".

Woodward:

The fallow plots were harrowed and the wheat and rye stubble plots were double disked during the week to free them of weed growth. Also, the early fall plowed plots were turned under. The major portion of our work, however, has consisted of a general clean-up of the weed growth about the station grounds.

Kafir on the rotations is coming into head at an average height of 52 inches. Milo is just beginning to show in the boot. Some of the first date of seeding broom corn on the Cereal Project will be ready to harvest the coming week. Grape varieties are being harvested every other day. They are averaging about 5 lbs. of fruit per plant. As we have some 60 or 70 varieties under experimentation, grape picking will probably be on our work program for the next two or three weeks.

Woodward, continued:

While only two weeks since our last rain, we are experiencing some very dry weather again. All the rotation forage crops are curling badly during the day.

Maximum temperature for the week, 99 on the 1st; minimum, 66 on the 27th; and precipitation, .16 inch.

Judith Basin:

Clouds have looked threatening at times but they passed by and no rain has been recorded during the past week. 1.02 inches of rain has fallen during the month of July, which is only a little more than one half of the average for that month. The seasonal precipitation for this year is just 3 inches, which is by far the lowest seasonal precipitation ever recorded at this Station. The average seasonal precipitation for the past 22 years is 8.92 inches, so we are almost 6 inches short of the average this year.

As crops are largely dependent on the seasonal rainfal in this region, it is not surprising that crop prospects look very poor. Some winter wheat has been threshed in the vicinity and yields range from 2 to 7 bushels per acre have been reported. Some fields will not be worth harvesting.

Trees at the station are also showing the effects of the drought, and many of the leaves are beginning to turn yellow. This is especially true of the Canadian poplars. The young trees in the shelterbelt experiments are doing well considering the dry season.

The Tenth Annual Farmers' Picnic was held at this Station on July 31. The program included speaking, sports, and bad music. Prizes were also given for various exhibits. While the crowd was not as large as in former years, it was as large as could be expected considering the adverse conditions - about 1,500 to 2,000 people were present.

Maximum temperature, 85; minimum, 46; precipitation, none.

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North Platte:

Threshing, which had been in progress on the Station since July 18, was stopped by rain on the night of the 31st. Oats and barley on the D.L.A. plots are yet to be threshed.

Rains during the last three days total 2.75 inches of precipitation. Previous to this corn leaves were rolling and some fields near the Station were beginning to fire. Corn crop prospects are now excellent, as the growth and stands are good and the fields generally clean.

July rainfall was 5.33 inches, which is 217 percent of normal.

Scottsbluff:

With the exception of the first and last days, the week has been cloudy with little or no sunshine. Only .35 inches of precipitation fell, but the cool weather has kept the corn from burning. The entire week was spent hoeing weeds and taking soil moisture samples.

The Annual Farmers' Picnic will be held the coming week, and arrangements are being made to entertain a large number of visitors. Messrs. Chilcott and Grace, and Stephens were station visitors the first of the week.

Maximum temperature, 97; minimum, 59; precipitation, 135 inch.

Sheridan:

The past week has been somewhat cool and rather cloudy, with some rain, which, although it amounted to but little, came in such form that it did late crops considerable good. The following data was collected: Maximum, 97; mean maximum, 86; minimum, 57; mean minimum, 61; precipitation, .42 inch; evaporation, 1.778 in.; and avg. wind velocity, 5.4 miles.

The month of July has been the hottest month (highest mean temperature) on record at Sheridan. The mean being 74.7, and we normally expect 67.0 degrees. The total precipitation for the month has been .78 inch; normal being, 1.02 in. To August 1 this year we are 5.96 inches short of precipitation, the normal to August 1 being a total of 10.48 inches. While the wind has not been violent this summer, it has blown considerably more than normal. Evaporation for the month was 10.297 - the highest on record here in July. This is an average evaporation of close to one-third of an inch per day.

Corn presents a very much better appearance, owing to the cool and somewhat rainy past week. It is making a satisfactory growth, but it cannot make much of a fodder crop and is very apt to make no good ears.

Sheridan, continued:

One day of threshing was done during the week of spring wheat from rotations and the variety field. A plot or two of winter wheat was also threshed. Results with spring wheat are what we expected, but are discouraging as most of them amounted to practically nothing. Without an exception, spring wheat on disked corn land, fall plowed, or spring plowed land was very badly shrivelled, but that on green manured land generally, and on summer tillage, threshed out very good samples of wheat, consider the season, although yields were low on them. Winter wheat so far is not very badly shriveled.

The land - summer tilled - for winter wheat varieties and rates and dates was prepared for seeding and staked on the 31st and the first dates of seeding made. Plot B of M.C. winter wheat was plowed, and although it was very dry, plowed up in good shape.

Train after train of cattle are being moved from this country because of shortage of pasture and water. Some are being marketed and others moved to pastures in numbers to the east and south of us. Most of those who have cattle in numbers over 25 or so are unloading, although it appears as though so much stock being moved out will make hay available at a reasonable figure by Xmas.

Tucumcari:

All crops continued to make a very rapid growth, and many of the sorghums will soon be fully headed out. On some of the sorghum plots the growth is uneven, but the plants are gradually getting uniform in height. A round of soil samples was taken during the week, and the soil was found filled with moisture to the full 6th foot sampled. Rains have been so frequent that there has so far been little feeding by crops on the reserve moisture supply, and if we were not to get any more rain this season good crops are practically assured on the Station.

A hundred milo trip made from the Station on Saturday, the 2d, out over the plains country showed crops in a most excellent condition. Corn, especially, is very good and indications are that it will make a high yield. Some wheat is being threshed, and at one farm where threshing was in progress the yield was slightly better than 30 bushels per acre and the quality of grain high.

Field work for the week has consisted of hoeing weeds, cultivating, making selections on the cooperative bean work, and other jobs and routine work.

Maximum temperature, 89; minimum, 63; wind velocity, 5.4 miles; evaporation, 2.089"; precipitation, .06".

Woodward:

The fallow plots were harrowed and the wheat and rye stubble plots were double disked during the week to free them of weed growth. Also, the early fall plowed plots were turned under. The major portion of our work, however, has consisted of a general clean-up of the weed growth about the station grounds.

Kafir on the rotations is coming into head at an average height of 52 inches. Milo is just beginning to show in the boot. Some of the first date of seeding broom corn on the Cereal Project will be ready to harvest the coming week. Grape varieties are being harvested every other day. They are averaging about 5 lbs. of fruit per plant. As we have some 60 or 70 varieties under experimentation, grape picking will probably be on our work program for the next two or three weeks.

Woodward, continued:

While only two weeks since our last rain, we are experiencing some very dry weather again. All the rotation forage crops are curling badly during the day.

Maximum temperature for the week, 99 on the 1st; minimum, 66 on the 27th; and precipitation, .16 inch.

Judith Basin:

Clouds have looked threatening at times but they passed by and no rain has been recorded during the past week. 1.02 inches of rain has fallen during the month of July, which is only a little more than one half of the average for that month. The seasonal precipitation for this year is just 3 inches, which is by far the lowest seasonal precipitation ever recorded at this Station. The average seasonal precipitation for the past 22 years is 8.92 inches, so we are almost 6 inches short of the average this year.

As crops are largely dependent on the seasonal rainfal in this region, it is not surprising that crop prospects look very poor. Some winter wheat has been threshed in the vicinity and yields range from 2 to 7 bushels per acre have been reported. Some fields will not be worth harvesting.

Trees at the station are also showing the effects of the drought, and many of the leaves are beginning to turn yellow. This is especially true of the Canadian poplars. The young trees in the shelterbelt experiments are doing well considering the dry season.

The Tenth Annual Farmers' Picnic was held at this Station on July 31. The program included speaking, sports, and bad music. Prizes were also given for various exhibits. While the crowd was not as large as in former years, it was as large as could be expected considering the adverse conditions - about 1,500 to 2,000 people were present.

Maximum temperature, 85; minimum, 46; precipitation, none.

P676

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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE.

AUG 16 1919

REPORT FOR WEEK ENDING AUGUST 16, 1919.
(Except where otherwise indicated)

Amarillo:

The past week has been rather hot and dry with very little wind, and not very much evaporation, and only a trace of precipitation. However, the rains last week gave us enough moisture so that all crops have made an excellent growth. Kafir is now nearly fully headed and sorghum is beginning to head. Milo replanted as late as June 21 is beginning to head.

Sudan Grass on 87 A gave a yield of 6,240 pounds of hay per acre.

All of the fallow plats were gone over with the spring-tooth harrow to kill the weeds which started after the rains last week.

Maximum temperature for the week 96; minimum 63; average hourly wind velocity 6.1 miles; evaporation (4' tank) 2.423, (6' tank) 1.936; precipitation T.

Colby:

The past week has been very warm and dry with strong hot winds occurring nearly every day. Corn, milo, and kafir have curled badly and are beginning to burn. Kafir and surface planted milo have headed out and listed milo is commencing to head. Grasshoppers are again becoming numerous and are doing considerable damage to corn, milo and beans.

Early fall plowing was completed during the fore part of the week. A number of fallow and green manure plats were disked. Corn and feterita were cultivated and the alley ways between plats were also cultivated.

Maximum temperature 100; minimum temperature 51; precipitation 0.

Dalhart:

The work for the week has consisted of threshing, discing, and plowing. The threshing of the oats on the general field was finished and the machine put away in the implement shed by three o'clock Wednesday. The best yield of oats was 60.8 bushels and the poorest was about 40 bushels. They made an average of about 50 bushels per acre. The yields of winter rye and winter wheat are as follows:

Rotation.	Crop.	Total.	Grain.	Straw per Acre.	Grain per acre.
166	W.Rye	610 lb.	162 lb.	4480 lb.	27.0 bu.
167	"	550 "	155 "	3950 "	25.8 "
MCA	W.Wheat	210 "	85 "	1250 "	14.2 "
MCB	"	315 "	127 "	1880 "	21.2 "
MCD	"	485 "	178 "	3070 "	29.7 "

The land that was occupied by the oats has been disced and three series have been plowed. The soil is turning over in good shape, there being plenty of moisture present. All the crops are in good shape for the farmer's picnic. There are lots of weeds here yet but they are where we can get them with the mower and then rake them. From reports coming from various farmers and localities the picnic will be largely attended.

About thirty of the business men and families visited the station Tuesday evening of this week. They had an enjoyable time from the beginning to the end. Supper was served on a long table in front of the implement shed. They were well pleased with the way the station was looking.

Dalhart, cont'd:

They stated that this was the best place in the Panhandle for a good time--plenty of shade and lots of good things to look at. They were much interested in the ornamental plantings that were made this spring. Many of the plants were in bloom. Some have been blooming for three months.

Maximum temperature 92; minimum 57; precipitation 0.

Hays:

Dry weather continues. Corn is suffering very much from drought. Sorghum is wilting slightly but not suffering. Alfalfa and brome grass are drying up.

Team work during the week consisted of cultivating fallow plats, roads and alleys to destroy weeds, and of mowing and cleaning off borders.

Soil moisture determinations were made upon 25 plats.

Huntley:

The chief occupation during the week has been the cleaning up and burning of weeds along the fence rows and roads. Scattering weeds throughout the corn plats were pulled and the corn stand counts were taken.

Fall plowing has been completed on field G and a good beginning has been made on field H. The ground is breaking up very dry and cloddy on all plats.

Professor E. C. Chilcott, Mr. J. M. Stephens and Mr. Kelso visited the station Monday.

Maximum temperature for the week 94; minimum 44; precipitation .04".

Lawton:

High temperatures and hot winds from the southwest have prevailed during the past week. We have had but 0.30" of rain since the 20th of July and all crops are showing the effects of dry weather very decidedly. Corn is drying rapidly and part or possibly all of it will have to be cut within the next week. Corn in alternate rows with cowpeas was harvested today. The first three dates of seeding test with Red Amber were harvested today and also the first planting date of dwarf kafir. All grain sorghum crops are drying and maturing rapidly. Unless rain falls within the next few days all grain sorghum crops will be prematurely ripened and ready for harvest. However, the yield of grain will be quite good. Cotton is showing the need of rain especially on the upland.

Mandan:

Horticulture.

Terminal bud notes were taken in hardiness investigations.

A large quantity of fruit seed was washed and stratified.

Old canes are being pruned out in the raspberry patch.

A miscellaneous lot of plum, cherry, and apple stocks were budded.

During the week potato spraying has been carried on and a considerable amount of honey was taken from the five bee hives.

Mandan, cont'd:

Agronomy.

Threshing started during the week, but we have been able to thresh only a day and a half because of high winds. The oats rotations were finished this morning. The highest yield of oats was 37.5 bushel per acre on fallow in the South Field, and the lowest 10 bushel on fall plowing on the MC series in the main field. The average will be about 23 bushel per acre. Oats weighed about 28 pounds per bushel.

A few plats of wheat were threshed and they run about 15 bushel per acre. The wheat is of good quality and weighs 60 pounds per bushel.

Corn is starting to ripen. A small amount of seed corn was picked on the 15th.

Mr. J. M. Stephens is away visiting western points with Professor Chilcott. Mr. Max Pfaender and Mr. F. E. Cobb are in Canada attending the Great Plains Horticulturists Meeting.

Maximum temperature 93 on 13th; minimum 52 on 12th; precipitation .22".

Cooperative Grazing Experiment.

Quadrats were clipped for the first time since July 1, on the 10th. The growth was light.

Hay in the mowing experiment was weighed and averaged a little better than a quarter of a ton per acre.

North Platte, report for two weeks ending August 16:

Weather has been continuously dry and warm without much wind. No rain has falled since August 2. Weedy stubble fields are becoming quite dry. Corn as yet shows no signs of injury.

On the D. L. A. plats all early fall plowing has been completed. Plats to be summer tilled in 1920 have been disced to kill weeds and plats to be spring plowed or late fall plowed have been mowed.

Scottsbluff:

Continued warm weather with hot winds has been our lot the past week. The nights, however, have been unusually cool. Some of the more pessimistic have been predicting an early fall.

Nearly all of the corn plats have dried up beyond recovery and will be cut as soon as we can get to them. However, those plats in the M.C. series still remain quite green and would be benefitted by a rain.

The engine and thresher were put in shape during the week and it is planned to start threshing the coming week.

Maximum temperature for the week 97; minimum 47; precipitation .06".

Sheridan:

The week just past has been another dry one with but a trace of precipitation, and the following data collected: Maximum temperature 99;

Sheridan, cont'd:

mean maximum 87; Minimum temperature 41; mean minimum 53; Average wind velocity 4.2 miles; Evaporation 2.204 inches.

The fore part of the week, some time was spent in a campaign against weeds, particularly Russian Thistles which are rather numerous this year. Since that time the whole station force of labor has been employed in running a concrete floor in the horse barn which job has not yet been completed. On the concrete under the horses, a grating of 2" x 4" laid on edge and bolted together will provide drainage and keep the horses from standing on concrete.

Prof. E. C. Chilcott and Messrs. John M. Stephens and F. L. Kelso were visitors at the station on the 12th.

As no relief has come in the form of rain to growing crops it will probably be necessary to harvest all of the corn and sorghum on the station soon as it is drying rapidly and is making no noticeable growth.

Tucumcari:

Crop conditions continue very satisfactory. The earlier planted milo is beginning to mature and practically all of the sorghums are out in full head. There has been little stooling of the sorghums this year which is rather unusual in a year of as much rainfall as we have had this season. This condition of growth will make yields much lower than they otherwise would have been. Grass is making a splendid growth on the range and the Station cattle are doing well. Field work for the week has consisted largely of routine jobs and cleaning up generally about the place.

Maximum temperature 99; minimum 63; Wind velocity 3.1 miles; Evaporation 2.135"; precipitation T.

Woodward:

Corn is in full tassel, kafir is in full head and the milo and the sorghums are heading. Forage yield is going to be good for all the crops have attained an average height. Grain yields, however, are likely to be shortened by the present dry weather, this being a critical period in their growth. The fall plowed plots were turned under during the past week after first being disked. Grape harvesting from the variety experiments is still in progress. About 1,000 pounds were taken from the vineyard this past week. Cultivating was done among the orchard and the forest tree plantings.

The weather continues dry in this immediate vicinity though some heavy rains were had in parts of the county this past week. Evaporation is high and crops are suffering.

Maximum temperature for the week 104 on the 15th; minimum 64 on the 9th and 10th; precipitation Trace.

WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR WEEK ENDING AUGUST 23, 1919.
(Except where otherwise indicated)

Amarillo:

Crops have made excellent growth the past week and the days have been rather warm but the nights are beginning to get cool. Kafir is now fully headed with the exception of a few plats that were replanted. Sorghum is nearly headed.

Work during the week has consisted of plowing all of the early fall plowed plats in both the CC series and the rotations and as we have done no threshing yet, we had to move the shocks before plowing; harvesting of cowpeas for hay; plowing under three plats for green manure; and taking a round of soil samples on the kafir.

Mr. J. E. Mundell was a visitor at the station on the 18th, Mr. Seiglinger on the 19th and Mr. B. E. Rothgeb is here at present doing some work on the grain sorghums.

Maximum temperature for the week 90; minimum 58; average hourly wind velocity 5.1 miles; evaporation (4' tank) 1.810", (6' tank) 1.593"; Precipitation .68".

Archer:

Most of the harvesting was finished during the past week. Only a few plats of oats on the rotations and some of the spring wheat varieties on the cereal plats remain. Two high winds during the week blew over the shocks of oat varieties and mixed them badly.

All of the winter wheat and barley on the rotations was threshed on Thursday. The highest yield of winter wheat was 3.3 bushels per acre on plat D of the winter wheat series. The highest yield of barley was on plat D of the barley series with 5.7 bushels per acre. The lowest yields of barley were on plats B and E, each yielding two and one-half pounds per acre. Only a small part of the spring wheat has been threshed.

Sunflowers are ready to put in the silo. They have made a better growth than anything else on the station.

Maximum temperature 94; minimum 47; precipitation 0.

Colby:

Comparatively cool, cloudy weather has prevailed during the greater part of the week. The last two days, however, have been very warm with the usual strong hot winds blowing. As no rain was received, crops which had recovered considerably from the scorching weather of the previous week are again suffering quite seriously. Milo and kafir have curled badly. Listed milo is completely headed out but does not stand over 2½ feet high. Corn is ripening or rather drying up rapidly. Feterita has withstood the hot weather fairly well so far and is making a good growth.

Field work has been devoted largely to hoeing and cleaning up of weeds on the D. L. A. field. Fall listing of plats was also completed.

Maximum temperature 100; minimum 51; precipitation 0.

Dalhart:

The work for the past week has been rather rushing. We have been

Dalhart, cont'd:

working hard to get things up in the best shape so as to have the station looking its best on the day of the picnic. Together with this we have had some harvesting to do and some baling too. We baled the oat straw this week and got 200 good bales. We still have a good sized stack but it will not do to bale. It was rained on before we finished and it is still wet. We will use this for mulching. We have harvested the sudan on rotations 84 and 87. The sudan in the Forage planting was also harvested, together with the first two dates of planting of red amber sorgo. The cowpeas have all been mowed, raked and cocked except those in the variety test.

We will have our picnic next Thursday and the sale on Friday. I have a large number of sale bills typewritten and will give them out to the farmers the day of the picnic.

Everything on the station is headed but the late sorghums and crops sure look good. Everything was rouged this week and the stands are all even. We have mowed the entire station for the fourth time this summer and I am in hopes that this will be sufficient. The roadways look good now and show the station off well. It will take a day and a half to haul off all the weeds and grass that was mowed.

Huntley:

With the exception of plats now in corn all fall plowing has been completed on the rotations. Considerable difficulty was experienced in preparing a seed bed for winter wheat on fall plowing, the ground being very dry and cloddy.

A round of soil samples taken during the week shows the moisture condition to be practically the same as revealed by samples taken six weeks ago. Ground that has been fallowed this season has a little moisture in the lower half of the first foot and the upper inch of the second foot but below that depth the soil is dry.

Temperature for the week: Maximum 97; minimum 48; precipitation 0.

Judith Basin:

Dry weather continues here and unless rain soon comes such late crops as corn and potatoes will give very low yields. August is now half gone and less than one-sixth of the normal August precipitation has been recorded. As a consequence, the leaves of the corn are now curling and showing signs of the drought very plainly.

The past week has been spent in harvesting and threshing small grains. The increase field of winter wheat yielded a little over 5 bushels to the acre. No plots of winter wheat or oats on the rotations yielded as much as ten bushels to the acre.

Mr. E. C. Chilcott and J. M. Stephens visited the station on August 13 and 14.

Maximum temperature for the week 86; minimum 44; precipitation 0.

Mandan:

Horticulture.

The necessary work has been actively carried on during the past week.

Mandan, cont'd:

Hybrid plums, cherries and other fruits were picked; apple and plum stocks budded; potatoes sprayed; and fruit seed washed and stratified.

The appearance of the fruit trees and bushes is wonderful, bearing in mind the persistent drouth of the present year, coupled with the dry years 1917 and 1918. There is every reason to believe that the vegetation will enter the coming winter in reasonably satisfactory condition.

Grasshoppers still continue to give trouble and seem likely to be very plentiful next year unless very energetic steps are taken to check them.

Mr. T. H. Kearney, of the Office of Alkali and Drouth Resistant Plants Investigations, was a visitor during the week. Professor E. C. Chilcott and Mr. J. M. Stephens are again at the station.

Agronomy.

Threshing was completed during the week. The average yield of wheat in the main field was 11.3 bushels per acre. The maximum was 15.8 on corn ground and fallow; the least was 5.5 on MC fall plowing. In the South field the average was 8.9, the maximum 15.5 on fallow and the least 4.5 on subsoiling. Barley was a light crop, making an average of 10.8 on the main field, the maximum was 16.3 on disked corn ground, and the least 5 bushels on listed ground. The average in the South field was less than 5 bushels. Flax was also threshed and the best plat went less than 3 bushel.

Threshing grain varieties for the Office of Cereal Investigations was also completed. The best yield of wheat was the Acme, a South Dakota selection, which averaged better than any of the others.

Threshing of the bulk fields for feed is now being done. The field of oats will average about the same as the average in the main field.

Corn will be ready to harvest soon. Considerable more seed was picked during the week.

Maximum 98 on the 19th; minimum 48 on the 16th; precipitation 0.

Cooperative Grazing Experiment.

The cattle on the small pasture are still doing well and have shown a fair gain during the past two weeks. The rains early in the month started the Blue Grama grass which has carried them longer than expected.

North Platte:

Dry weather continues. There have been several cloudy days during the past week but no rain has fallen. Corn is holding out very well, but developing slowly. Should rain come soon a good crop will be assured. Owing to the continued dry weather, very little land has as yet been prepared for fall grain seeding in the vicinity.

Scottsbluff:

During the past week we have experienced several brands of weather but for the greater portion of the time it has been cool and cloudy. The fore part of the week was spent in taking special soil moisture samples along an irrigation lateral to determine whether or not adjacent dry land plats were

Scottsbluff, cont'd:

being subirrigated. There was very little difference in moisture content of samples taken ten feet from the lateral and those taken at a distance of fifty feet.

Threshing of small grains took up the remainder of the week. Only the best of the plats were threshed and these made very poor yields. The best yield obtained was that of winter wheat on fallow which made only 12.2 bushels per acre.

Corn plats have completely dried up and will be cut the coming week. Maximum temperature for the week 97; minimum 44; precipitation T.

Sheridan:

The past week has been somewhat cooler both by night and day than we have experienced this summer and it has been entirely devoid of rain. For the last 5 days the whole of this country has been wrapped in smoke which is supposed to be coming from some place in Montana or Idaho. There is less smoke, however, this morning than there has been.

Corn and sorghum dried out very rapidly during the week so all of these crops except sorghum from Rotation 48 which is still green are now in the shock. A corn binder could not be used for cutting this crop, so the grain binder was used and a rather poor job done.

The new growth of wood on the trees of the Shelterbelt, we think, is about mature now so should survive the winter in good shape. Some of the leaves here and there among the trees are turning yellow from drouth, but we do not believe that the trees are particularly injured by drouth. Chinese Elms, boxelder and Northwest Poplars have made a wonderful amount of growth this year, other varieties somewhat less. The three varieties of pine trees set out last spring were a total loss as none of them survived the summer. The same is practically true of all poplar cuttings put in as replacements.

The concrete floor in the horse barn has been completed with gutters, drains, etc. Under each horse is a removable grating of two-by-fours set on edge, spaced three-eights of an inch and bolted together, making it possible to flush out these stalls and keep the barn sanitary.

The movement of livestock to other sections of the country either for sale or pasture has subsided now except among the larger cattle outfits, as there have been some local showers in this section within the last couple of weeks which have benefitted pastures somewhat.

The weather as shown by data collected during the past week was as follows: Maximum 94, mean maximum 91; minimum 46, mean minimum 50; evaporation 1.830"; average wind velocity 2.6 miles; precipitation 0.

Woodward:

The first of the forage crops were harvested this past week when a few plats of early seeded sorghum on the cereal project were cut. First broom corn was also harvested, also on the cereal project. Broom Corn on the rotations will be ready for harvest this coming week. All fallow and all early fall plowed plats were harrowed to control weed growth.

Woodward, cont'd:

The station was visited on the 23rd by Mr. H. P. Gould of the Horticultural Office. Mr. John B. Seiglinger, in charge of the Cereal Office work at this station was away this past week on an Official visit to Lubbock and other Texas stations.

Maximum for the week 99 on the 18th; minimum 76 on the 20th; precipitation .65 inches.

Big Spring, report for week ending August 16.

Maximum temperature for the week 103; minimum 68; wind velocity 4.7 miles; evaporation 3.07 inches; precipitation 0.

This was the warmest week we have experienced this season. This hot dry weather has caused all crops to ripen rapidly. The leaves on the varieties of forage sorghums were burning and it was found necessary to harvest the plats this week. While some of them did not mature seed, the height on these varieties run from five to eight feet. The rest of the dwarf kafir plats in the rotation series were harvested during the week, also the c.c. milo and listed series.

B. E. Rothgeb of the Cereal Office spent Thursday and Friday at the station taking special notes on the grain sorghum work.

Big Spring:

This week has been more favorable for the crops on account of the cooler weather we have had and the light shower that fell on Wednesday morning. The work of the week has consisted of harvesting the c.c. kafir, a number of the varieties of grain sorghums, and making counts on the stands of a number of the later planted crops. If the conditions are favorable we intend to fill our pit silo the first of the week and will then begin threshing the milo plats in the rotation series. A number of these plats were harvested on July 31 and have cured out nicely and we believe will thresh in good shape. We still have a number of visitors to the farm each week and most of them state that they are well pleased with the crop we have on the station this year.

Maximum temperature for the week 101 on the 16th; minimum 63; wind velocity 3.5 miles; evaporation 2.30 inches; precipitation .28 of an inch.

Judith Basin:

Weather conditions have been favorable for harvesting and threshing during the past week but there has been no let up to the drought. The air has been very smoky due to the forest fires in the mountains to the west.

Plot threshing has practically been completed and a few more days work in the increase fields will finish threshing for the season.

Winter wheat in Field A gave an average yield of 1.9 bu. to the acre. The average yield in Field B was 4.8 bu. per acre. The highest acre-yield of winter wheat (8.7) was obtained on the summer fallowed plot in the continuous cropping series. All other plots in the continuous cropping series were failures.

Judith Basin, cont'd:

Spring wheat in Field A gave an average yield of 3.2 bu. to the acre The highest yield (7.2 bu. to the acre) was obtained on disked corn ground in rotation 68. The lowest yield (.3 bu. to the acre) was obtained from fall plowing in the continuous cropping series. Spring wheat yielded under 1.0 bu. to the acre in nearly every case it was grown on land occupied by some small grain last year.

Oats gave an average yield of 3.9 bu. to the acre in Field A, and 6.1 bu. to the acre in Field B. The highest acre-yield (9.4 bu.) was obtained on fallowed land in Rotation 8. All oat plots following Brome or Alfalfa in the sod rotations were failures. Oats following small grains gave low yields in all cases.

The average acre-yield of barley was 3.1 bu. in Field A, and 4.0 bu. in Field B. The highest yield (8.3 bu. to the acre) was obtained on disked corn land in Rotation 51. The lowest yield (1.0 bu. to the acre) was obtained on disked corn land in Rotation 57. There seems to be a considerable difference in the soil of these two rotations.

The summer fallowed plot of flax in the continuous cropping series was the only one that did not result in a failure in Field A. It yielded at the rate of 4.1 bu. to the acre. Flax in Field B. gave an average yield of 2.5 bu. to the acre, yields after corn being higher than yields after small grains or after fallow.

A considerable portion of the spring wheat in the Judith Basin has been threshed and yields generally run about the same or a little lower than was the case with winter wheat. Some fields are failures while others are yielding from three to six bushels to the acre.

Maximum temperature for the week 93; minimum 48; precipitation 0.

Lawton:

Foggy mornings and cloudy weather during the greater portion of the day time has prevailed during the past week but as yet we have failed to get any rain. All sorghum crops continue to mature rapidly and cotton is badly in need of rain. Corn plats in Field A were harvested August 19 and also a few kafir plats. More of the grain sorghums will be harvested during the coming week. Contrary to the usual experience kafir is ripening earlier than Milo. Birds continue to do considerable damage in spite of the campaign we have waged against them for over two weeks. Counting of stands on all crops except cotton was completed during the week.

B. E. Rothgeb visited the station the fore part of the week.

Maximum temperature for the week 99; minimum 62.

NOTE: Mr. E. C. Chilcott completed his recent trip in the field and arrived in Washington Thursday, August 28, 1919.

WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR WEEK ENDING AUGUST 30, 1919.
(Except where otherwise indicated).

Akron:

The corn has burned badly the past week and nine plats on the rotations have been harvested. Nearly all the plants had died before it silked. Sudan grass was mowed and stacked during the week. Cane is burning badly and will be harvested next week. We have had only 0.44" precipitation this month and a fire will run on the prairie or stubble wherever there is anything to burn. Feed will be as scarce this winter as any year during the past ten. The leaves on many of the trees are drying up and falling off.

Maximum temperature for the week 98; minimum 51; precipitation 0.08". Precipitation for the past 30 days has been 0.44" and in July 1.79".

Amarillo:

During the past week the days have been rather warm and the nights cool. There has been no precipitation and the crops have not made very much progress.

We have finished harvesting our cowpeas, one plat which was replanted, and have harvested the New Mexico Pinto Beans on Rotation 300.

The writer and Mr. Brandon made a trip overland to Dalhart and attended the Farmer's Picnic on the Dalhart station. Some very good crops of milo, kafir, etc., were observed on the plains between Amarillo and Dalhart, not much of the land is in cultivation, however, as it is mostly given over to cattle, but some of the cattlemen have in some crops for feed.

Mr. Rothgeb, Mr. John H. Parker of the Kansas Agricultural College, and Mr. Brandon were visitors on the station the 27th.

Maximum temperature for the week 95; minimum 59; average hourly wind velocity 4.9 miles per hour; evaporation (4' tank) 2.223", (6' tank) 1.725"; precipitation 0.

Archer:

Most of the past week has been spent in harvesting and threshing varieties and rate and date of seeding. Finished cutting small grains on the rotations Monday morning. One more days threshing will finish the rotations. All yields are very low.

A round of soil samples has just been finished. The percentage moisture ranges from 4.7 to 11.5 on the cropped plats and from 9.8 to 17.7 on the fallow plats. No rain since the seventh of the month and everything is very dry. Corn is burning some and the ears are not filling well.

Plats F of the continuous cropping series were listed Friday. The ground was so dry it was impossible to get the lister in more than 3 or 4 inches.

Maximum temperature 92; minimum 42; precipitation 0.

Big Spring:

The dry weather that had prevailed here for the past six weeks was broken by heavy rains the fore part of the week. From early Sunday morning until Tuesday night our rain gauge registered 3.32 inches. This is the heaviest rainfall for any one week since June. While most of the experimen-

Big Spring, cont'd:

tal plats were harvested and in the shock, this moisture will be of great benefit to the cotton, peanuts and the later planted feed crops. The pit silo was filled with feterita Thursday afternoon and Friday morning. After filling the silo we set the thresher and threshed out a block of sudan grass harvested for seed. We then made a start on the milo plats and got two of them threshed before quitting Saturday. One plat made a yield of 36 bu. per acre and the other 37. We are expecting a number of the other milo plats to turn out at least 50 bushels per acre.

Maximum temperature for the week 92; minimum 63; wind velocity 3.0 miles per hour; evaporation 1.95 inches; precipitation 3.32 inches.

The station was visited Saturday morning by Mr. Packett of Austin, State Nursery Inspector.

Dalhart:

The field work for the past week has consisted of cleaning up the station and preparing for the farmer's picnic. Everything was in readiness for the reception the date of the picnic. All the crops are well advanced and were looking good at that time. We received many complements on the way things were looking at the station. There was a large attendance and everybody had a good time.

Mr. Brandon of Woodward, Mr. Locke of Amarillo and Mr. Brown of Tucumcari visited the station and took in the farmer's picnic.

We have been short on water all week but managed to have enough to last through the day at the picnic by cutting off the water from the stock tank.

We have harvested the third date of red amber sorgo this week and the fourth date will be ready within the next few days. We have not had any rain for quite a while and the soil is beginning to get pretty dry in places. None of the crops are suffering as yet but a good rain now will certainly make a good addition to our weather conditions. It has been still and hot here all week.

Edgeley:

Maximum temperature 81; minimum 40; precipitation .11 inch.

Dry, hot weather prevailed throughout the week, with cool nights. Threshing has been delayed on account of the necessity for cutting the corn crop before frost. Grasshoppers have also done considerable damage to the growing crop of corn. Corn cutting is just being completed and threshing will begin some time next week.

Professor E. C. Chilcott and Mr. John Stephens visited the Station the first of the week.

Hays, report for week ending August 23:

Maximum temperature for the week 96; minimum 50; precipitation .03.

Generally, the weather during the week has been cooler, the last three or four days having been cloudy or hazy. Some say it is real Indian summer weather.

Hays, cont'd:

Corn is about mature or dried up and ready to be harvested. Cane is mature and a very good crop. Kaifr and milo continue heading despite the continued dry weather. Prospects are good for heavy grain yields of these crops.

During the week a few soil moisture determinations were made and a count of stand of plants and suckers was made on all the sorghum plats.

Hays:

Maximum temperature 103; minimum 60; precipitation .09.

With the exception of two days the weather has been generally cooler. It has been either cloudy or part cloudy every day.

Kafir and milo continues developing fairly well even though rain is needed badly. Alfalfa and brome are all brown and making no growth.

Corn and cane on the project was harvested August 27. The cane had made a very good growth and a fine crop. Corn is, as usual, quite poor. It had blown down badly and was difficult to harvest.

Hettinger:

Have completed all threshing on the station with the exception of the flax on the flax rotations with the following results on wheat: 5 C fallow 5.33 bu. per acre, 12 A disked corn 3.83 bu. per acre, 14 A disked corn 3.66 bu. per acre, 15 C rye turned under 3.16 bu. per acre, 16 A disked corn 6.66 bu. per acre, 17 C peas turned under 3.83 bu. per acre, 18 C fallow 7.16 bu. per acre, 19 A disked corn 6.66 bu. per acre, 31 A disked corn 4.16 bu. per acre, 32 C sweet clover turned under 3.83 bu. per acre, 41 E disked corn 5.16 bu. per acre, 42 E disked corn 10.3 bu. per acre, 71 C disked corn 4.5 bu. per acre, 72 A fallow 8.83 bu. per acre, 75 C fallow 7.83 bu. per acre, 76 A disked potato 6.83 bu. per acre, 581 con't disked stubble (failure), 582 A disked stubble (failure), 582 B fall plowed (failure) 583 A fall plowed (failure), 583 B disked stubble .83 bu. per acre, 583 C disked stubble 1.66 bu. per acre, 583 C disked stubble 2.66 bu. per acre, 591 con't Spaulding deep tilled 1.33 bu. per acre, 605 C fallow 3.0 bu. per acre, 613 B disked corn 6.33 bu. per acre, 614 B disked corn 6.16 bu. per acre, 615 B disked corn 7.50 bu. per acre, 616 B disked corn 7.5 bu. per acre, A con't spring plowed 4 inches (failure), B con't fall plowed 8 inches (failure), D fallow 10.5 bu. per acre, A con't spring plowed (failure), B con't fall plowed (failure), D fallow (failure), I fallow 9.16 bu. per acre, K. fallow 6.83 bu. per acre, O fallow 8.33 bu. per acre, H con't spring plowed 8 inches Manure 5 tons (failure) F con't listed (failure), 11R D disked corn 1.83 bu. per acre. Oats were a total failure on this station with the exception of plat D fallow which yielded 16.2 bu. per acre.

Corn on all D. L. A. plats is very poor and will be run into the silo the coming week.

We have completed the new machine shed on the station which was badly needed. All work is going along nicely and the grain yields in the community is exceeding the expectations, rangeing from 4 to 8 bu. per acre.

Huntley:

Unusually cool weather and a light shower this week have served to freshen up those few crops that still show signs of life. A few bean and potato varieties are beginning to mature while corn and sunflowers grown for silage are ready to cut. Weeds, especially Russian thistles, are making a vigorous growth in the plats of grain stubble but roads, alleys and fallow plats are free from them.

Stand counts were taken on bean, potato and garden plats during the week and planting stakes were distributed to winter wheat and rye plats.

Temperature for the week; Maximum 93; minimum 42; precipitation .18".

Judith Basin:

The extremely dry weather that has characterized the entire summer is still with us. Only one day remains in August and up to date .29 of an inch of precipitation has been recorded. The average precipitation for the month of August for the years 1898 to 1918 inclusive is 1.49 inches. This has been the dryest August since 1905. There is now but little hope of a fair yield of such late maturing crops as potatoes. The trees are dropping their leaves and look very bad in comparison to their usual looks at this season of the year.

Threshing of small grains was finished at this station during the week. The increase field of Pelissier spring wheat yielded less than 2 bushels to the acre. Russian thistles were bad in this field. Peas were also cut for the forage crop office. Yields will be light. The best yielding varieties tested at the station this year were Buffum's and Minn. 1505 winter wheat each with an average yield of 7 bu. to the acre. Monad and D-5 spring wheat each with an average yield of 6 bu. to the acre, Lincoln oats with an average yield of 15.3 bu. to the acre, and Coast barley with an average yield of 8.3 bu. to the acre.

Maximum temperature for the week 86; minimum 46; precipitation 0.

Lawton:

Climatic conditions have been considerably more favorable for crops of all kinds during the last week. Partly cloudy weather prevailed several days and heavy dews obtained in the eraly mornings. On the 24th a local rain amounted to 0.91" and 0.72" fell on the night of the 29th, making a total of 1.63" for the week. All of the kafir in Field A except the M.C.F. and G. plots and L.M.-E.F.G.H. plots were harvested on the 26th and 27th. M.C. Feterita and M.C.H. Milo were also harvested on the same date.

Some harvesting was also done in the cooperative grain and forage sorghum plots. Alfalfa was seeded on plot E. Rotation 142 on the 27th. Sweet clover plots in rotations 133 and 134 and cowpeas in rotations 205, 266, 396 and 286 were plowed under for green manure on the 26th.

Mandan:

Horticulture.

Some miscellaneous budding was done. Some plats that have become weedy were given a final cultivation.

Mandan, cont'd:

Picking of fruits has continued and a number of very promising plum selections were made.

Agronomy.

Corn in the rotations was harvested during the week. It is fully mature and should produce a good yield; the stalks are very short.

Sorghum on rotation 58 was also harvested and the large field of sorghum is now being cut.

Threshing of the bulk fields was finished during the week. This completes all the threshing now except the flax for the Office of Cereal Investigations and a little alfalfa.

Maximum 84 on the 26th; minimum 46 on the 24th; precipitation 0.

Cooperative grazing experiment.

Cattle were weighed yesterday and all showed a good gain for the month of August. The cattle in the 30 acre pasture lost weight during the past ten days and will be moved to the reserve pasture. The cattle in the Rotation pasture were moved into the last division of the pasture for the season. Quadrats in the Clipping Experiment are being cut for the last time this season.

Mr. David Fairchild and Mr. L. R. Fjulin of the Shenandoah Nurseries, Iowa, were visitors during the week.

Arboriculture.

Tartarian and Ginnula seed was picked and yielded 16 pounds of threshed seed.

Weeding and watering of seed beds continues. The burlap blankets have been removed from this year's beds and the beds of Carragana. The boxelder in the field have made a better growth than was anticipated earlier in the month.

Mr. Henchel is now finishing inspections in Wyoming and proceeding towards Huntley and the Yellowstone valley in Montana.

Mr. Bastine is in the vicinity of Harlem and working towards Havre.

Mr. Cobb returned from Canada and Minnesota the 24th.

Scottsbluff:

Hot days and cool nights have characterized the past week. No precipitation of any consequence has fallen for the past two months and the ground is extremely dry and hard.

Fall plowing, however, is being delayed as it will be impossible to do anything before rain comes.

All corn plats excepting those in the C.C. series were cut during the week. All the plats were so short that it was necessary to cut by hand. Only a few of the plats contained any grain whatever and the yields will be exceptionally poor.

A few plats of sorghum in the sorghum variety tests, however, will make a fair yield of seed.

Scottsbluff, cont'd:

Dean Burnett and Prof. Burr of the State University have been spending a few days on the station.

Maximum temperature for the week 92; minimum 42; precipitation .03".

Sheridan:

The past week has been as dry as any of the others since the first of April. The weather has been generally cooler, the nights considerably so. The following data was obtained: Maximum temperature 94, mean maximum 88; Minimum 40, mean minimum 51; evaporation 1.735"; wind velocity 3.0 miles; precipitation T.

An attempt was made at plowing in a rather sandy soil in the Cereal Field but it was a failure due to there being a few inches of loose soil on top and below that the soil was baked so hard that the plow would not penetrate it so plowing had to be discontinued until we get some rain.

Forest fires have been burning within sight of the station at various places for close onto two months, and the biggest one yet is in progress now. It is thought that broken glass is the cause of most of these fires, or rather the sun shining on broken glass.

The excavating has been finished for a root cellar to be built this fall and the foundation footing of concrete run for an ice house.

Woodward:

Variety cowpeas were harvested during the week as also were the rate of seeding broom corn plats on the Cereal Project. The milos, kafirs and the sorghums have made a good growth and are filling well and the yield should be good both of forage and grain. The last of the grape varieties were picked.

Professor John H. Parker of the Kansas Agricultural College and Mr. B. E. Rothgeb of the Cereal Office were visitors at the station on Monday and Tuesday.

Maximum temperature for the week 96 on the 27th and 30th; minimum 65 on the 30th; precipitation .26 inches.